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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,336	01/06/2006	Kazuhiro Ono	P27943	3742
7055 7590 07/09/2007 GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER ROBERTS, LEZAH	
			ART UNIT 1614	PAPER NUMBER
			NOTIFICATION DATE 07/09/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

gbpatent@gbpatent.com  
pto@gbpatent.com

# Office Action Summary

Application No.

10/535,336

Applicant(s)

ONO ET AL.

Examiner

Lezah W. Roberts

Art Unit

1614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10 Apr 2007.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

This Office Action is in response to the Amendment filed April 2, 2007. All previous rejections have been withdrawn unless stated below.

### ***Information Disclosure Statement***

The information disclosure statement filed April 10, 2007 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information lined out has not been considered.

## **Claims**

### **Claim Rejections - 35 USC § 103 - Obviousness**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1) Claims 1, 4 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanker et al. (US 5,980,869).

Sanker et al. disclose dual phase oral compositions comprising plants and plant extracts. The plants include blueberries and cranberries. These two plants comprise polyphenols<sup>1</sup>. The second composition comprises the plant and also comprises an additional acidic buffering agent. These agents include glycolic acid and citric acid (col. 6, lines 24-25). Other components include enzymes such as papain (a protease, col. 8, line 50), which encompasses claims 6-7, and sodium fluoride (col. 3, line 62), which is an inorganic metal salt encompassing claim 4. The addition of the *Ericaceae* plant

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<sup>1</sup> Walker et al. (US 5,646,178) Abstract.

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species or extract to an oral composition provides an oral composition with improved anti-plaque, anti-gingivitis, anti-periodontitis, anti-caries, and anti-calculus benefits. The reference differs from the instant claims insofar as it does not specifically mention polyphenols.

The reference is not anticipatory insofar as one must "pick and choose" from different lists plants, plant extracts and acids. That being said, it would have been obvious in a self-evident manner to have selected cranberries from one list and glycolic acid from another, motivated by the unambiguous disclosure of each individually, and consistent with the basic principle of patent prosecution that a reference should be considered as expansively as is reasonable in determining the full scope of the contents within its four corners.

2) Claims 1 and 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhu (WO 01/17494) in view of Melman (US 2002/0156130).

Zhu discloses oral compositions comprising polyphenols. The polyphenols are useful for their anti-caries, anti-gingivitis and effect against dental calculus. The compositions also comprise a buffering agent such as citric acid (page 9, lines 1-3). Enzymes may be incorporated into the compositions such as papain, dextranase and mutanase (page 18, lines 15-16), encompassing claims 6-7. The reference differs from the instant claims insofar as it does not disclose the compositions comprise glycolic acid.

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Melman discloses oral compositions comprising acid such as acetic acid. Acetic acid may be substituted or used in conjunction with other acids such as citric acid, lactic acid, glycolic acid and stearic acid (paragraph 0017). The acid reduces the growth of plaque bacteria. It is also used with other dental ingredients to treat the oral cavity. The pH of the compositions preferably ranges from 4 to 7. The compositions comprise chelating agents to dissolve calculus on the teeth. The compositions also comprise sodium chloride (Example 7). The compositions may also comprise antibacterial agents (paragraph 0041). The reference differs from the instant claims insofar as it does not disclose using polyphenols in the compositions.

Generally, it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose; the idea of combining them flows logically from their having been individually taught in the prior art. In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069,1072 (CCPA 1980); In re Crockett, 279 F.2d 274, 126 USPQ 186 (CCPA 1960). It would have been obvious to one of ordinary skill in the art to have used the acid in the compositions of the primary reference motivated by the desire to add to the antibacterial function of the polyphenol, as disclosed by the secondary reference and supported by cited precedent above.

3) Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over in Melman (US 2002/0156130) in view of Oriza (JP 2000-239136).

The primary reference is discussed above. The reference differs from the instant claims insofar as it does not disclose polyphenol extracted from *Perilla frutescens* as an anti-bacterial agent.

Oriza discloses oral compositions comprising polyphenols from *Perilla frutescens* (see Abstract). The polyphenols act as an anti-bacterial to treat caries and periodontal disease. The reference differs from the instant claims insofar as it does not disclose the compositions comprise glycolic acid.

See In re Kerkhoven cited supra. It would have been obvious to one of ordinary skill in the art to have used polyphenol extracted from *Perilla frutescens* as an anti-bacterial agent in the compositions of the primary reference motivated by the desire to add to the antibacterial function of the acid, as disclosed by the secondary reference and supported by cited precedent above.

Claims 1 and 3-7 are rejected.

No claims are allowed.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lezah W. Roberts whose telephone number is 571-272-1071. The examiner can normally be reached on 8:30 - 5:00.

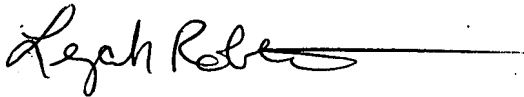
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on 571-272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lezah Roberts  
Patent Examiner  
Art Unit 1614



Frederick Krass  
Primary Examiner  
Art Unit 1614

